



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Identification of the preparation** HP LaserJet CE278A-AD-AF Print Cartridge

**Product use** This product is a toner preparation that is used in HP LaserJet Pro M1536/P1566/P1606 series printers.

**Version #** 05

**Revision date** 02-Mar-2012

**Company identification** Hewlett-Packard Company  
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## 2. Hazards Identification

### Acute health effects

**Skin contact** Unlikely to cause skin irritation.

**Eye contact** May cause transient slight irritation

**Inhalation** Minimal respiratory tract irritation may occur with exposure to large amounts of toner dust. Use of this product as intended does not result in inhalation of excessive amounts of dust.

**Ingestion** Low acute toxicity. Ingestion is a minor route of entry for intended use of this product.

### Potential health effects

**Routes of exposure** Potential routes of exposure under normal use conditions are skin, eye contact and inhalation.

Ingestion is not expected to be a primary route of exposure for this product under normal use conditions.

**Chronic health effects** Prolonged inhalation of excessive amounts of any dust may cause lung damage. Use of this product as intended does not result in inhalation of excessive amounts of dust.

**Carcinogenicity** None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

**Other information** This product is not classified as hazardous according to OSHA CFR 1910.1200 or EU Directive 1999/45/EC, as amended.

This preparation contains no component classified as Persistent, Bioaccumulative, and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) as defined under Regulation (EC) 1907/2006.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Styrene acrylate copolymer	Trade Secret	< 55
Ferrite	Trade Secret	< 45
Wax	Trade Secret	< 10

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## 4. First Aid Measures

### First aid procedures

<b>Eye contact</b>	Do not rub eyes. Immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists, consult a physician.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. Get medical attention if irritation develops or persists.
<b>Inhalation</b>	Move person to fresh air immediately. If irritation persists, consult a physician.
<b>Ingestion</b>	Rinse mouth out with water. Drink one to two glasses of water. If symptoms occur, consult a physician.

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## 5. Fire Fighting Measures

<b>Flammable properties</b>	Like most organic material in powder form, toner can form explosive dust-air mixtures when finely dispersed in air.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	CO <sub>2</sub> , water, or dry chemical
<b>Unsuitable extinguishing media</b>	None known.
<b>Protection of firefighters</b>	
<b>Protective equipment and precautions for firefighters</b>	If fire occurs in the printer, treat as an electrical fire.
<b>Specific methods</b>	None established.
<b>Hazardous combustion products</b>	Carbon monoxide and carbon dioxide.

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## 6. Accidental Release Measures

<b>Personal precautions</b>	Minimize dust generation and accumulation.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.
<b>Other information</b>	Slowly vacuum or sweep the material into a bag or other sealed container. Clean remainder with a damp cloth or vacuum cleaner. If a vacuum is used, the motor must be rated as dust explosion-proof. Fine powder can form explosive dust-air mixtures. Dispose of in compliance with federal, state, and local regulations.

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## 7. Handling and Storage

<b>Handling</b>	Keep out of the reach of children. Avoid inhalation of dust and contact with skin and eyes. Use with adequate ventilation. Keep away from excessive heat, sparks, and open flames.
<b>Storage</b>	Keep out of the reach of children. Keep tightly closed and dry. Store at room temperature. Store away from strong oxidizers.

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## 8. Exposure Controls / Personal Protection

<b>Exposure guidelines</b>	USA OSHA (TWA/PEL): 15 mg/m <sup>3</sup> (Total Dust), 5 mg/m <sup>3</sup> (Respirable Fraction)  ACGIH (TWA/TLV): 10 mg/m <sup>3</sup> (Inhalable Particulate), 3 mg/m <sup>3</sup> (Respirable Particulate)
<b>Engineering controls</b>	Use in a well ventilated area.
<b>Personal protective equipment</b>	
<b>General</b>	No personal respiratory protective equipment required under normal conditions of use.

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## 9. Physical & Chemical Properties

<b>Appearance</b>	Fine powder
<b>Color</b>	Black.
<b>Odor</b>	Slight plastic odor
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Solid
<b>Form</b>	solid

<b>pH</b>	Not applicable
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not applicable
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not flammable
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	1.4 - 1.8 (H <sub>2</sub> O = 1)
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Negligible in water. Partially soluble in toluene and xylene.
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not available.
<b>Softening point</b>	212 - 302 °F (100 - 150 °C)
<b>Viscosity</b>	Not applicable
<b>Percent volatile</b>	Negligible
<b>VOC</b>	Not applicable
<b>Other information</b>	Decomposition temperature: > 200 ° C

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## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under normal storage conditions.
<b>Conditions to avoid</b>	Imaging Drum: Exposure to light
<b>Incompatible materials</b>	Strong oxidizers
<b>Hazardous decomposition products</b>	Carbon monoxide and carbon dioxide.
<b>Possibility of hazardous reactions</b>	Will not occur.

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## 11. Toxicological Information

<b>Oral toxicity</b>	LD50/oral/rat >2000 mg/kg; Not harmful. (OECD 401). Not classified for acute oral toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
<b>Carcinogenicity</b>	None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.
<b>Inhalation toxicity</b>	No information available.  Not classified for acute inhalation toxicity according to EU Directive 67/548/EEC and 1999/45/EC.
<b>Serious eye damage/eye irritation</b>	Not classified as irritant, according to OSHA Hazard Communication Standard (HCS) and EU Directive 67/548/EEC and as amended.
<b>Chronic toxicity</b>	No information available.
<b>Sensitization</b>	Not classified as a sensitizer according to EU Directive 67/548/EEC and as amended, and OSHA HCS (US).
<b>Mutagenicity</b>	Negative, does not indicate mutagenic potential (Ames Test: Salmonella typhimurium)
<b>Reproductivity</b>	Not classified as toxic according to EU Directive 67/548/EEC and as amended, California Prop. 65, and DFG (Germany).
<b>Further information</b>	Complete toxicity data are not available for this specific formulation Refer to Section 2 for potential health effects and Section 4 for first aid measures.

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## 12. Ecological Information

<b>Ecotoxicity</b>	LL50: > 1000 mg/l, Fish, 96.00 Hours
<b>Persistence and degradability</b>	Not available.

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## 13. Disposal Considerations

**Disposal instructions** Do not shred toner cartridge, unless dust-explosion prevention measures are taken. Finely dispersed particles may form explosive mixtures in air. Dispose of in compliance with federal, state, and local regulations.

HP's Planet Partners (trademark) supplies recycling program enables simple, convenient recycling of HP original inkjet and LaserJet supplies. For more information and to determine if this service is available in your location, please visit <http://www.hp.com/recycle>.

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## 14. Transport Information

**Further information** 105 or more of these cartridges shipped together in a single package (e.g., box, container), by air, are regulated as a magnetized material. These requirements do not apply to single or dual pack cartridges contained in an original HP package and shrink wrapped on a pallet for shipment by air.

### DOT

Not regulated as dangerous goods.

### IATA

#### Basic shipping requirements:

**Proper shipping name** Magnetized Material  
**UN number** 2807

### IMDG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

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## 15. Regulatory Information

**US federal regulations** US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.

### CERCLA (Superfund) reportable quantity

None

### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** No

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

**State regulations** Not applicable.

**Regulatory information** All chemical substances in this HP product have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

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## 16. Other Information

**Other information** This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

**HMIS® ratings** Health: 1  
Flammability: 1  
Physical hazard: 0

**NFPA ratings**

Health: 1  
Flammability: 1  
Instability: 0

**Disclaimer**

This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard Company. Data is the most current known to Hewlett-Packard Company at the time of preparation of this document and is believed to be accurate. It should not be construed as guaranteeing specific properties of the products as described or suitability for a particular application. This document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries.

**Issue date**

02-Mar-2012

**This data sheet contains changes from the previous version in section(s):**

Product and Company Identification: Alternate Trade Names  
1. Product and Company Identification: Product use  
Composition / Information on Ingredients: Ingredients  
Ecological Information: Ecotoxicity

**Manufacturer information**

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**Explanation of abbreviations**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>CAS</b>	Chemical Abstracts Service
<b>CERCLA</b>	Comprehensive Environmental Response Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>COC</b>	Cleveland Open Cup
<b>DOT</b>	Department of Transportation
<b>EPCRA</b>	Emergency Planning and Community Right-to-Know Act (aka SARA)
<b>IARC</b>	International Agency for Research on Cancer
<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>NTP</b>	National Toxicology Program
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986
<b>STEL</b>	Short-Term Exposure Limit
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act
<b>VOC</b>	Volatile Organic Compounds